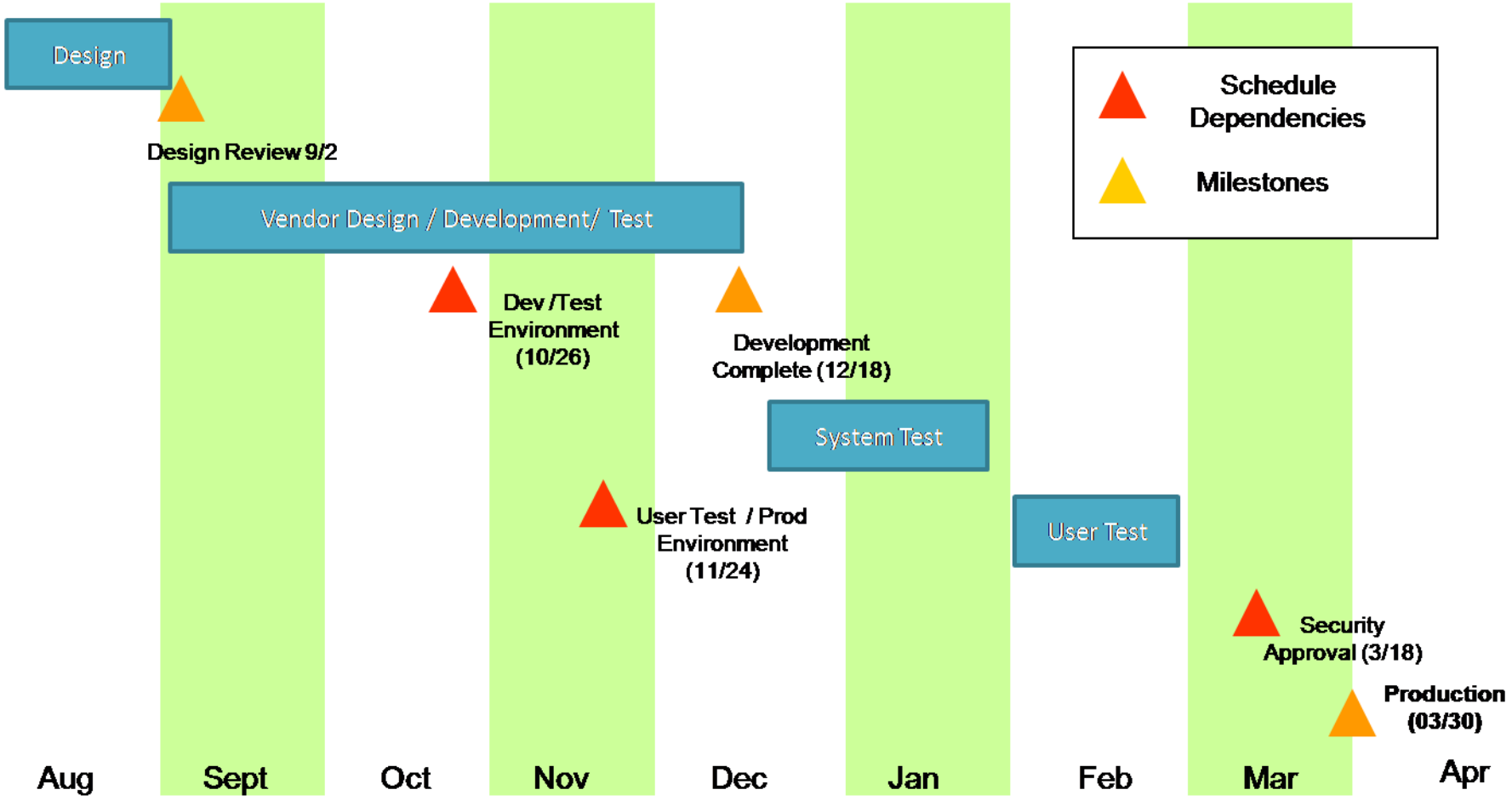
Status report on DM-Framework

- **Complete:**
  - Design activities were completed and the final design was approved on September 2, 2009.
  - Externally accessible test environment issue has been resolved.
- **In Progress:**
  - NC4 is setting up the DM-Framework development and test environments. Target completion is latter November.
  - NC4 and Virtual Agility are coordinating to configure DM-Framework components to meet system requirements, including integration with DM-OPEN, single sign on, alerting, etc. Target completion is mid-December.
- **Future:**
  - User Testing targeted for February.
  - Pilot phase targeted for March.
  - Key dependency is meeting security requirements during March 2010.
  - Full deployment of Initial Operating Capability (IOC) targeted for March 30th.

Schedule for DM-Framework



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Migration to DM-Framework

- During the week of October 12th, COG Administrators will be contacted via email and requested to confirm they wish to be migrated from DMIS Tools to DM-Framework.

- You should confirm migration if you:
  - Wish to retain previously entered Incident Records, or
  - Are interested in trying out the new system without re-registering when it becomes available, or
  - Plan to use the National Weather Service HazCollect system for issuing Non-weather Emergency Messages (NWEMs).

- In order to be considered an "active" COG, you should log into DMIS Tools multiple times during the coming months.

- Data to be migrated includes working or archived incident records with an "Incident Category" equal to "Actual" or "Planning," as well as CAP and NWEM Alerts.

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Mapping Discussion Question

Which GIS data layers are most useful to you for planning or response purposes?

- Weather Conditions
- Weather Alerts
- Hurricane Hazard
- Flood Hazard
- Fire Danger/Drought
- HazMat Plume
- Seismic Hazard
- Dam Hazard
- Other Hazards?
- Facility Locations
- Sensors
- Census Data/Demographics
- Other?

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Interoperable Mapping for Situation Awareness

- **Challenge:**
  - Support multiple mapping systems and multiple data sources
  - Quickly and Easily integrate new data as it becomes available
  - Incorporate disparate data from many sources using standards-based tools
  - Integrate various external Web data sources combined with local content

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Interoperable Mapping for Situation Awareness

- **Solution:**
  - Create new kind of mapping client
  - Providing easy access to real-time online sources of information like weather
  - Access to multiple base maps from local data sets and Web based services like ESRI ArcGIS Online , Microsoft Bing, NGS Topo Maps, USGS DRG, etc.
  - On-demand access to additional content and capabilities
  - Ability to draw, annotate and share new content

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Interoperable Mapping for Situation Awareness

- **Benefits:**
  - Completely browser based, no downloads or plug-ins
  - Data agnostic supporting common data types
  - Easily view consolidated content from different sources; Web content and/or your local content
  - Examples include: weather radar, Hazmat plumes, DOT webcams, News Feeds, Fire maps, Earthquake feeds, Satellite photos, Flyover images, Population demographics, Blog posts, Flicker, etc

Interoperable Mapping for Situation Awareness

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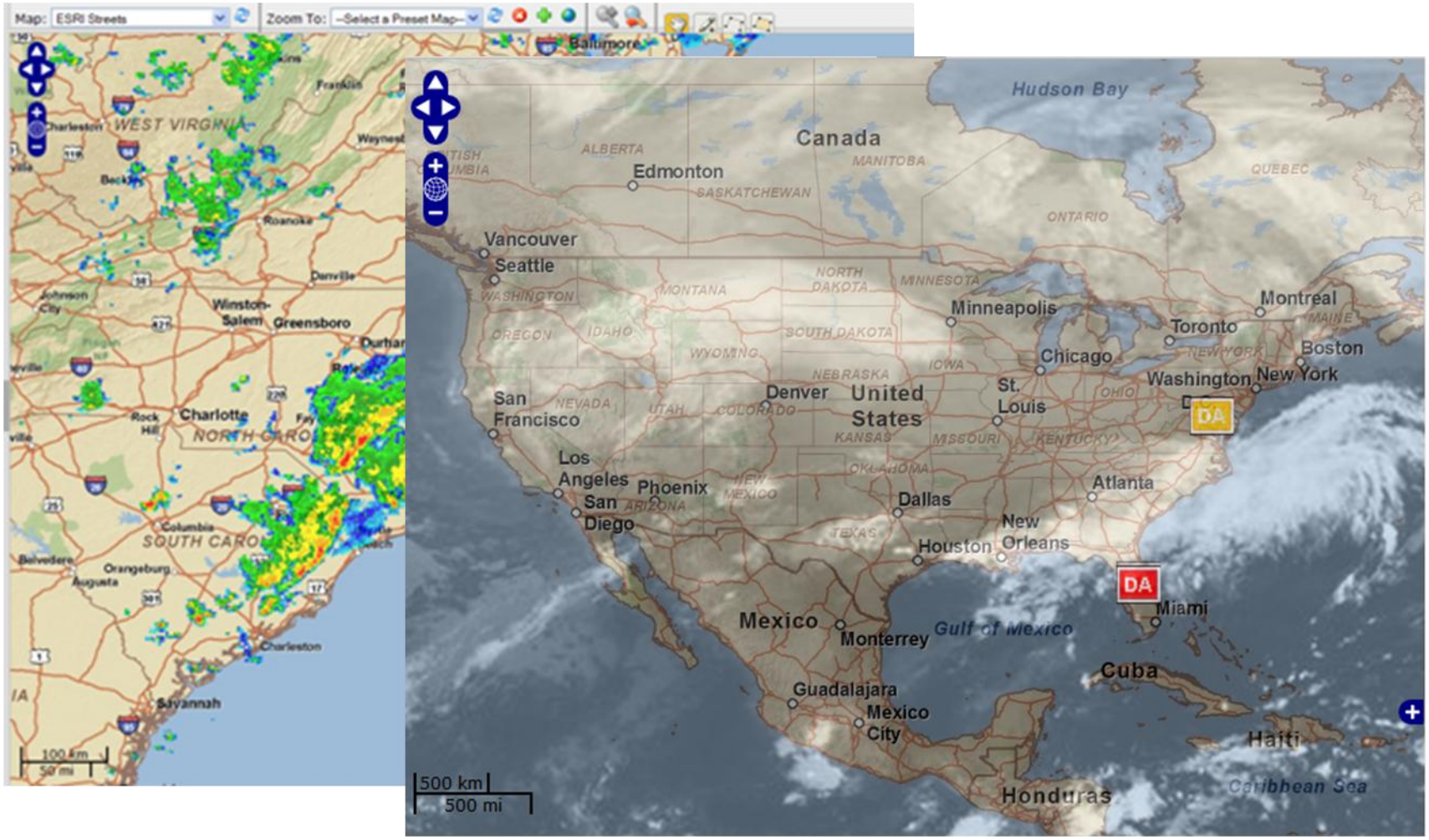
Interoperable Mapping for Situation Awareness



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Interoperable Mapping for Situation Awareness

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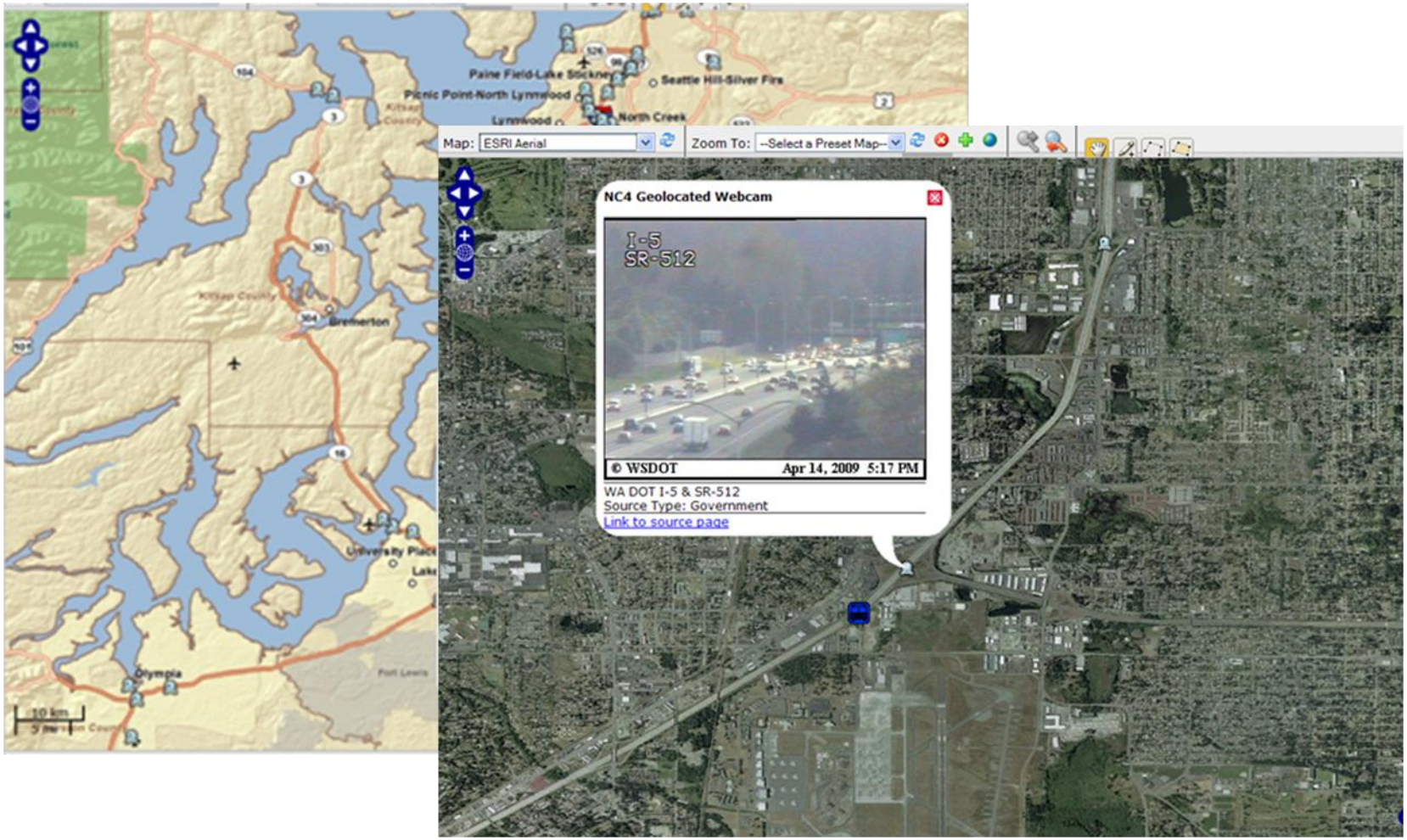
Interoperable Mapping for Situation Awareness



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Common Terminology

- **Geographic information system**
  - describes any information system that integrates, stores, edits, analyzes, shares, and displays geographic information
  - GIS is the merging of graphic map entities and databases
  - GIS data represents real world objects (roads, land use, elevation) with digital data

Common Terminology

- **Base Map**
  - A map containing the background upon which geographic data is overlayed and analyzed.
  - Portrays basic reference information onto which other information of a specialized nature is placed.
- **Layers**
  - A display entity comprised of one or more components that can be manipulated separately from other layers.

Online layer formats

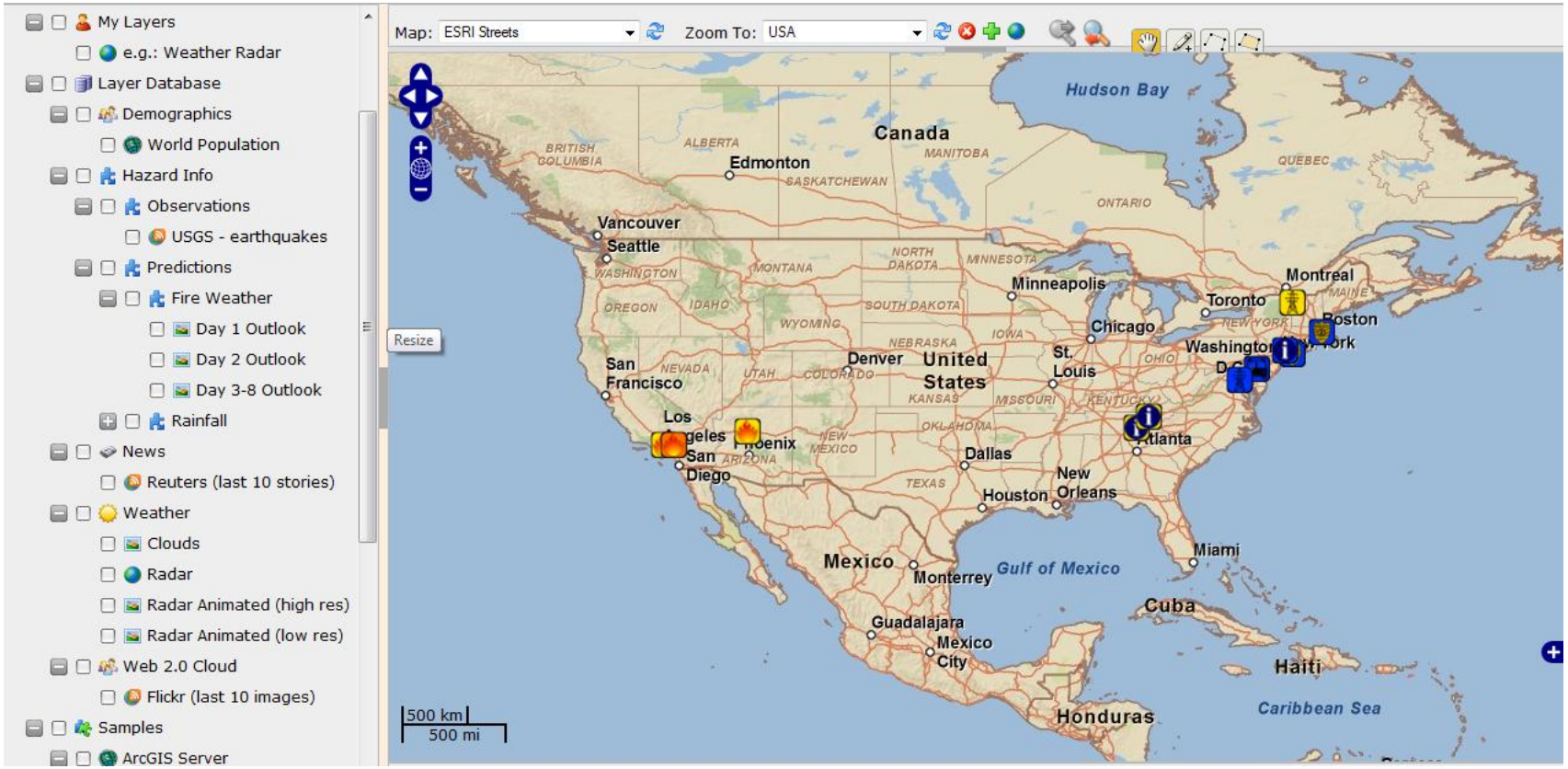
- **ArcGIS Server 9.3 Map**
  - either MXD-based services, or the new MSD-based map services
- **GeoRSS**
  - standard for encoding location as part of an Web feed.
  - Web feeds are used to describe feeds ("channels") of content, such as news articles, Audio blogs, video blogs and text blog entries.
- **Images**
  - Digital images that can be georeferenced

Online layer formats

- **WMS**
  - Web Map Service (WMS) is a standard protocol for serving georeferenced map images over the Internet that are generated by a map server using data from a GIS database. The specification was developed and first published by the Open Geospatial Consortium.
- **KML**
  - Keyhole Markup Language (KML) is an XML-based language schema for expressing geographic annotation and visualization on existing or future Web-based, two-dimensional maps and three-dimensional Earth browsers.
  - KML is an international standard of the Open Geospatial Consortium.

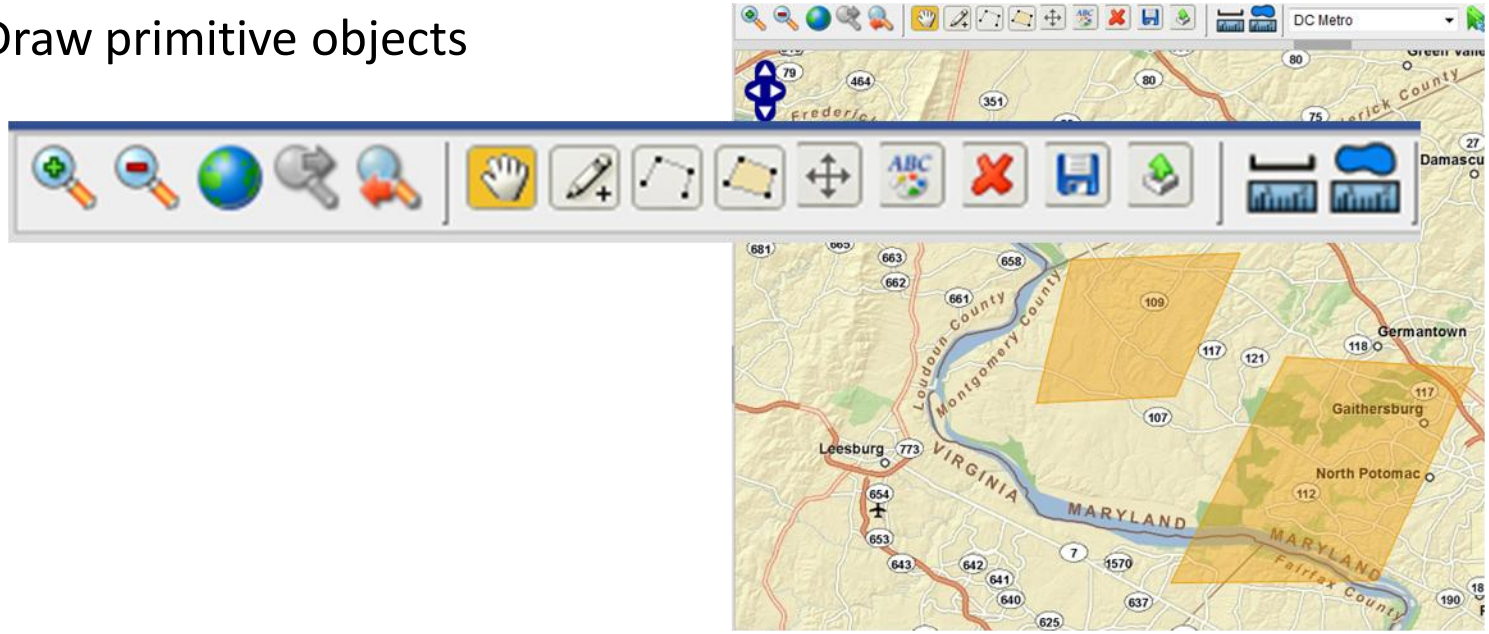
Map Client Features

- Clean/Simple UI to enhance usability – ease of use, ease of learning
- Flexible architecture, Ability to support multiple data sources



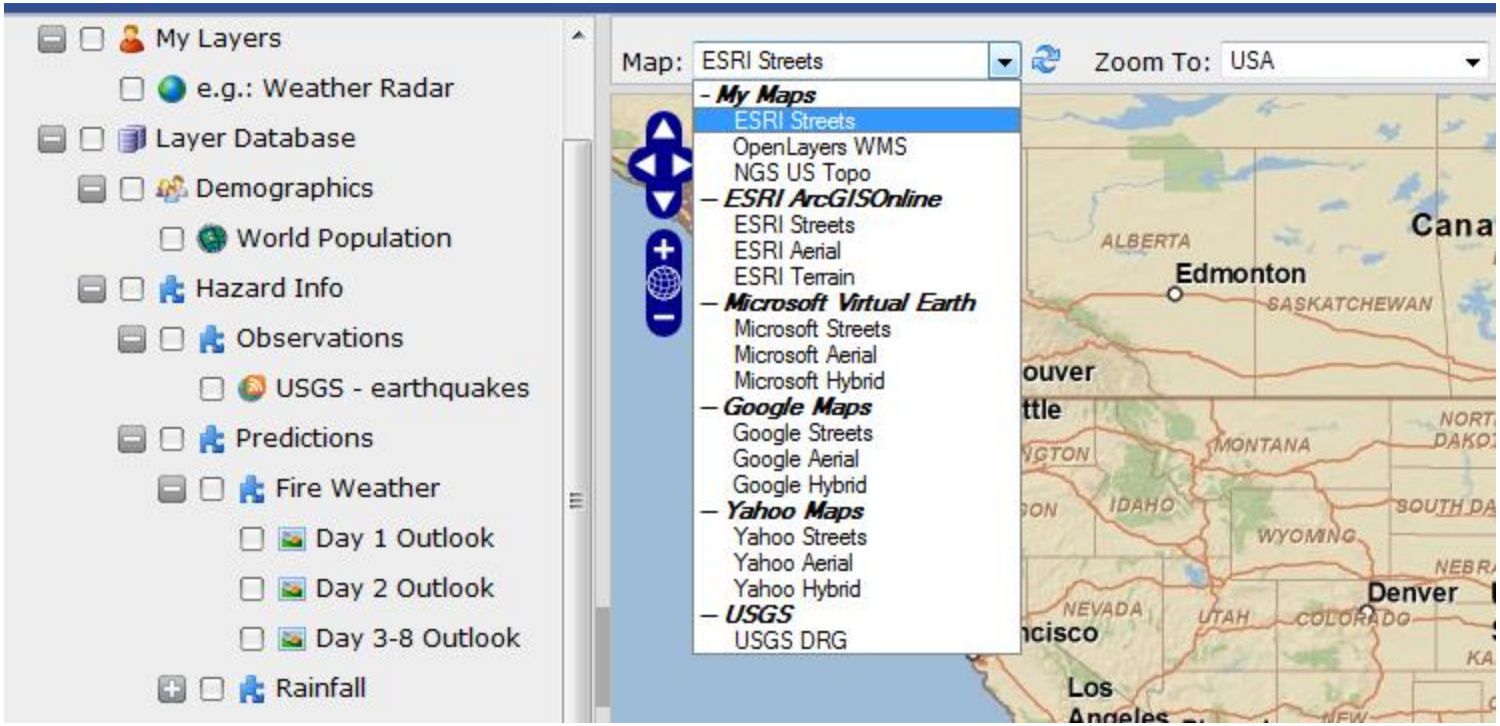
Map Client Features

- Pan, move view, zoom in/out, automatically center the map view on a user-defined selections
- Resize the map view to best suit monitor size/resolution
- Select individual data layers to integrate multiple data sources
- Draw primitive objects



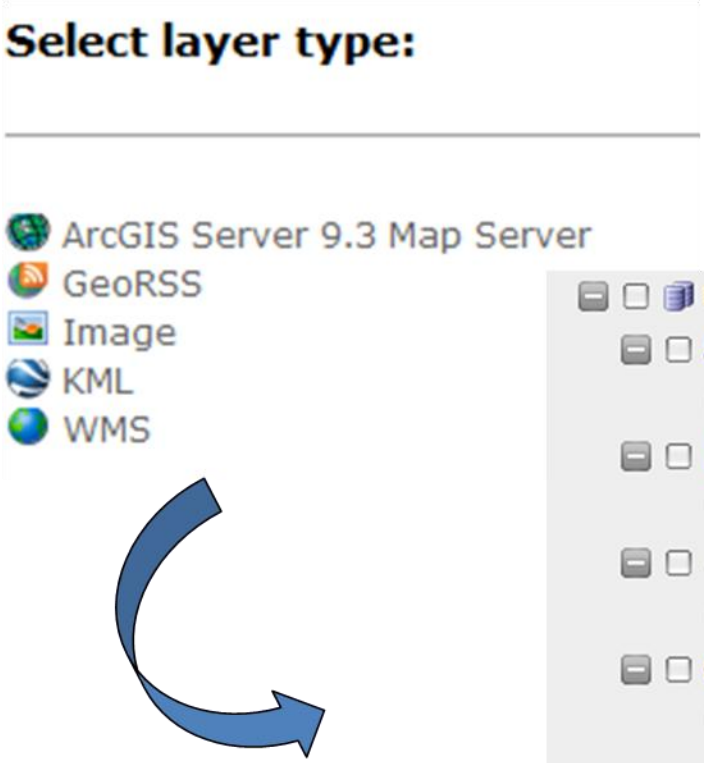
Map Client Features

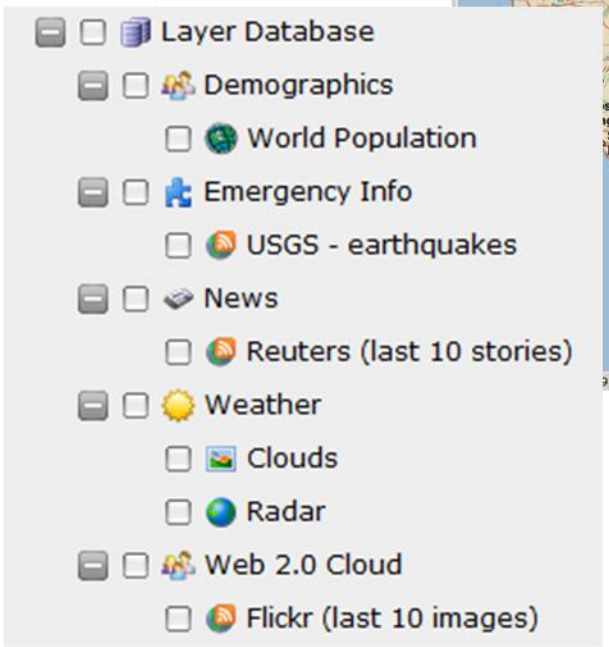
- Ability to select and incorporate multiple base maps



Map Client Features

- Ability to incorporate and display multiple layer types from a variety of sources





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Demonstration

- Combine and visualize
- Include multiple sources; weather radar, plumes, DOT Webcams, feeds, satellite photos, videos in one location
- Hand draw overlays to augment displays
- Lets see how it works.